6.2 Marian Peña[1], Joan Miquel[1] and Magdalena Iglesias[1]. Acoustic observation of zooplankton species in Cabrera and Sóller areas (Balearic Sea), Spain

[1]*Instituto Español de Oceanografía,,Muelle de Poniente s/n, 07014 Palma de Mallorca, Spain, marian.pena@ba.ieo.es, joan.miquel@ba.ieo.es; magdalena.iglesias@ba.ieo.es*

Multi-frequency techniques are applied to data registered in two oligotrophic areas of the western Mediterranean (the Balearic and Algerian sub-basins) with different geomorphologic and hydrodynamic characteristics, within the IDEADOS project. One of the objectives of this project is to determine the viability of the application of acoustic methods on the characterization of the communities of the meso- and bathy-pelagic system and the deep habitats in those areas. Ground-truthing from pelagic fishing and plankton nets (Calvet, WP2, Multinet, IRKMT and 3WP2) is available, though partly processed yet. Day-night distribution, acoustic layers typologies and preliminary acoustic identification of zooplankton groups is discussed. Analysis of the relative frequency response measured over three frequencies, 18, 38 and 70 kHz, contrasted to data from pelagic hauls is used to preliminary characterize acoustic backscatter. Trophic migration of myctophid species was recorded: direction of migration, acoustic and biological properties are considered.